

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TruePosition, Inc.,)
)
)
Plaintiff/)
Counterclaim-Defendant,)
)
) Civil Action No. 05-747-SLR
v.)
)
Andrew Corporation,)
)
)
Defendant/)
Counterclaim-Plaintiff.)
)

TRUEPOSITION'S OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

TruePosition, Inc. (“TruePosition”) submits this brief in support of its proposed constructions of the claims of its U.S. Patent 5,327,144 (the “Patent”) set forth in Joint Claim Construction Statement (A240-A247). TruePosition asserts Claims 1, 2, 22, 31 and 32. A copy of the Patent is attached (A1-A31).

The Court should adopt TruePosition’s proposed constructions, not only because they are legally correct, but also because Andrew did not reveal its claim construction positions until the end of expert discovery.

From the outset, the parties have taken different approaches to claim construction. TruePosition has consistently maintained that most of the patent claim terms can be accorded their plain meaning and that the remaining claim language should be construed based upon the intrinsic Patent record.

Andrew’s claim construction positions have been a moving target. When the parties originally exchanged claim constructions on November 22 pursuant to the Court’s Scheduling Order (D.I. 23, ¶ 5; D.I. 94, ¶2), Andrew designated seventeen terms and phrases for construction, most of which it had never before identified in its non-infringement contention interrogatory responses (A223-A225).¹ After the parties exchanged expert reports, which of course could only be based on the claim construction positions identified at the time, and deposed infringement experts, Andrew again expanded its list of disputed terms. On the evening before the parties’ Joint Claim Construction Statement was due, Andrew designated nineteen

¹TruePosition provided Andrew with its proposed constructions of these newly identified claim terms one business day later, on November 26 (A226-A229). On December 11, TruePosition served Andrew with a Cumulative list of terms that combined its two prior claim construction submissions (A230-A235) into one document and that provided a proposed construction for the term “channel,” since the parties were now construing the phrase “control channel” (A232-A233).

terms and phrases that purportedly required construction (A236-A239), including six phrases that Andrew had never before designated for construction. After the parties filed their Joint Claim Construction Statement (A240-A247), Andrew informed the Court that Andrew would not be construing six of its designated terms after all (A248-A249). At the same time, Andrew insists that the six terms and phrases that Andrew first designated for construction the evening before the Joint Claim Construction Statement, fifteen days ago, must still be construed.

In addition to complicating these proceedings, Andrew's claim construction positions are wrong as a matter of law. Andrew's proposed constructions almost uniformly invite the Court to change the meaning of the claims using language not found anywhere in the intrinsic Patent record. The Federal Circuit has repeatedly cautioned that the primary source of evidence for claim interpretation is the intrinsic Patent record. Many of Andrew's proposed constructions are also inconsistent with usages of the claim terms in the Patent specification.

The Court should therefore adopt TruePosition's proposed claim constructions, not only because they are legally correct, but also because adopting Andrew's proposed constructions will complicate these proceedings by injecting new and previously undisclosed positions into the case.

II. THE PATENT

A. The Patent Claims

The Patent contains 45 claims. On October 25, TruePosition narrowed the asserted claims to only Claims 1, 2, 22, 31 and 32 (the "Asserted Claims") in an effort to focus the parties' differences. Claims 1, 2 and 22 are directed to apparatus for locating a cell phone (A26 (col. 20, ll. 1-37) & A28 (col. 23, l. 56 – col. 24, l. 2)). Claims 31 and 32 are directed to methods for locating a cell phone (A28-A29 (col. 24, l. 51 – col. 25, l. 5)).

B. The Patent Specification

The invention of the 144 Patent is a system and method for locating a cell phone user using the transmissions normally emitted by the user's cell phone. The system is overlaid on equipment that normally exists in a cellular network (A18 (col. 4, ll. 19-24)).

The system locates cell phones using a "Time Difference of Arrival" (TDOA) technique (A23 (col. 14, ll. 15-21)). In a TDOA system, receivers are installed at a minimum of three "cell sites," such as the cellular towers within a cellular network (A19 (col. 5, ll. 5-7)). The receivers receive and process a signal that the cell phone transmits at each of the three cell sites and calculate the time that the signal arrived at the cell site (A24 (col. 15, ll. 32-35)). The receivers then send this time of arrival information to a central site computer in frames of data (A22 (col. 11, ll. 56-68)). The central site computer uses the frames to calculate the difference in time of arrival at pairs of the cell sites (A24 (col. 15, ll. 35-38)). The central site computer can then estimate the phone's location based on the differences in the signal's arrival time at the different cell sites (A24 (col. 15, ll. 51-53)).

Cellular telephone networks use two types of "channels" to communicate information, "control channels" and "voice channels" (A17 (col. 1, l. 68 – Col. 2, l. 8)). "Control channels" typically carry control information for, for example, establishing a voice communication link between the phone and the cell network. "Voice channels" transmit the voice signals that a user generates during a call. The Patented invention uses TDOA to locate cell phones using the "control channel" signal transmissions that cell phones emit during normal operation.

C. The Patent File History

The application that led to the Patent was filed on May 7, 1993. The United States Patent and Trademark Office initially rejected some of the pending claims in view of U.S. Patent 5,208,756 issued to an inventor named Song (A200.1-A200.11) (the "Prior Art") (A131-A132).

The PTO asserted that the Prior Art disclosed locating cell phones using “control channels” (*id.*). TruePosition distinguished its invention, however, by showing that its location system located control channel transmissions sent from a cellular telephone to a cell site, rather than locating on the control channel transmissions sent from the cell site to the cellular telephone as was disclosed in the Prior Art (A147). Control channel transmissions sent from a cellular telephone to a cell site are called “reverse” control channel transmissions. The PTO awarded the Patent to TruePosition’s predecessor on July 5, 1994.

III. THE LAW OF CLAIM CONSTRUCTION

A. The Role of the Claims

It is a “bedrock principle” of claim construction that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Thus, it is the words of the claims themselves that define the scope of the patented invention. *Id.* at 1312, (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). For that reason, “the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to ‘particularly point[] out and distinctly claim[] the subject matter which the patentee regards as his invention.’” *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) (quoting 35 U.S.C. § 112, ¶ 2).

“[T]he words of a claim ‘are generally given their ordinary and customary meaning.’” *Phillips*, 415 F.3d at 1312 (quoting *Vitronics*, 90 F.3d at 1582). “Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by our court and the Supreme Court in claim interpretation.” *Id.* at 1322. In some cases, the ordinary meaning of claim language is apparent and claim construction

involves “little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314. Therefore, if the meaning of a claim term is clear on its face, there is no need for additional construction. In these cases, general purpose dictionaries can be helpful. *Id.* The context in which a term is used in a claim can also be highly instructive. *See Phillips*, 415 F.3d at 1314 (Fed. Cir. 2005) (“the claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel”).

B. The Role of the Patent Specification

Claim terms, however, must be understood in the context of the written description of the patent specification. *See id.* at 1313 (“Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification”).

In claim construction, “interpreting what is *meant* by a word *in* a claim ‘is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.’” *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053 (Fed. Cir. 1989) (quoting *E. I. Du Pont De Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988)). Consequently, “although the specification often describes very specific embodiments of the invention, [district courts have been] repeatedly warned against confining the claims to those embodiments.” *Phillips*, 415 F.3d at 1323. Accordingly, the Federal Circuit has expressly rejected the contention that “if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Id.* (citing *Gemstar-TV Guide Int'l, Inc. v. Int'l Trade Comm'n*, 383 F.3d 1352, 1366 (Fed. Cir. 2004)). The disclosure of preferred embodiments or implementing examples should not be used to limit the scope of the claims absent a clear disavowal by the inventor. *See id.; Teleflex, Inc. v. Ficosa N.*

Am. Corp., 299 F.3d 1313, 1327 (Fed. Cir. 2002) (“[A]n accused infringer cannot overcome the ‘heavy presumption’ that a claim term takes on its ordinary meaning simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history”) (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). It is “not just because section 112 of the Patent Act requires that the claims themselves set forth the limits of the patent grant, but also because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments.”

Phillips, 415 F.3d at 1323.

Where “[n]othing in the specification, including the claims, indicates explicitly or implicitly, that the inventor intended to impart a novel meaning to” a claim term and the “record also contains no evidence that” the term “has a peculiar meaning in the field of art encompassed by the [] patent[,] [the Federal Circuit has concluded] that the ordinary and customary meaning attributed to this term by those of ordinary skill in this art at the time of the invention involves little more than the application of its widely accepted meaning.” *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1328 (Fed. Cir. 2006) (quoting *Phillips*, 415 F.3d at 1314); *see Agfa Corp. v. Creo Prods. Inc.*, 451 F.3d 1366, 1376-77 (Fed. Cir. 2006) (holding that “stack” had no particular meaning in the art).

C. The Role of the File History

The prosecution history, which the Federal Circuit has designated as part of the intrinsic Patent record, “consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. Arguments in the prosecution history, as opposed to claim amendments may only limit claims if they contain “words or expressions of manifest exclusion or restriction, representing a clear disavowal of

claim scope.” *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1308-09 (Fed. Cir. 2005) (citing *Gemstar-TV Guide*, 383 F.3d at 1364).

D. The Role of Extrinsic Evidence

“While extrinsic evidence ‘can shed useful light on the relevant art,’” the Federal Circuit has explained “that it is less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317. “A court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Phillips*, 415 F.3d at 1317.

E. Means-Plus Function Claim Elements

Claim elements written in means-plus-function format are construed to cover the structure disclosed in the patent that corresponds to the recited function, and equivalents of such structure. *See* 35 U.S.C. §112, ¶6 (an “element in a claim for a combination may be expressed as a means or step for performing a specified function [and] shall be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.”). The corresponding structure of a means-plus-function element that is implemented by a computer is not just any computer processor, but rather a computer processor that is programmed to perform the corresponding algorithm disclosed in the patent specification. *See WMS Gaming Inc. v. International Game Technology*, 184 F.3d 1339, 1349 (Fed. Cir. 1999) (“In a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.”); *Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1253 (Fed. Cir. 2005) (“A computer-implemented means-plus-

function term” is construed to cover “the corresponding structure disclosed in the specification and equivalents thereof, and the corresponding structure is the algorithm”).

IV. CONSTRUCTION OF THE DISPUTED TERMS

The Court should adopt TruePosition’s proposed claim constructions, as set forth in the parties’ Joint Claim Construction Statement (A240-A247) for the reasons set forth below.

TruePosition has addressed the disputed terms and phrases in the order in which they appear in the parties Joint Claim Construction Statement (*id*). TruePosition does not address those claim terms that Andrew recently withdrew from its list of designated terms in the letter to the Court dated January 30 (A248-A249).

A. “Prescribed Set” (Claims 1, 22 and 31)

TruePosition has maintained its current construction of this phrase since Andrew first designated it for construction on November 22. Andrew originally proposed a construction for this phrase on November 22 but has now changed its proposed construction.

1. The Proper Construction

If the Court is inclined to explicitly construe the phrase “**prescribed set**” then the Court should construe the phrase to mean a “set described by a cellular telephone system protocol.” The plain meaning of the word “**prescribed**” is to “lay down a rule: DICTATE” (A266). Therefore, the plain meaning of the phrase “**prescribed set**” refers to a “**set**” that is described in a rule or that is dictated. In Claim 1, the phrase “**prescribed set**” appears within the phrase “**prescribed set of reverse control channels**” (A26 (col. 20, l. 7)). In the context of the Patent specification, rules that dictate or describe a given “**prescribed set of reverse control channels**” are called “cellular telephone protocols” (A18 (col. 4, ll. 43-45)). The Patent specification explains that:

. . . control channel transmissions already occur periodically in cellular systems. Thus the present invention is compatible with existing *cellular telephone protocols* and would not require the cellular system or the individual cellular telephones to be modified.

(*id.* (emphasis supplied) & (A270: “protocol: . . . 3. a set of *rules* governing the communication and the transfer of data between machines, as in a computer system” (emphasis supplied)).

Examples of cellular telephone system protocols include “AMPS,” an acronym for Advanced Mobile Phone System. Other protocols include GSM (A250-A258) and “TDMA,” a protocol which is specifically mentioned in the Patent specification (A17) Col. 1, ll. 27-31). Therefore, the phrase “**prescribed set**” refers to a set described by a cellular telephone protocol. Nothing in the claim language or file history suggests to the contrary.

2. Andrew’s Erroneous Construction

Andrew wrongly proposes to construe the phrase “**prescribed set**” to mean “the set of frequency bands that are assigned to convey information in the format specified in ANSI 553” (A241). The Court should reject Andrew’s proposed construction. Andrew seeks to limit the construction of the phrase “**prescribed set**” to “the set of frequency bands” in “ANSI 553,” a cellular telephone standard that is not mentioned in the Patent claims, specification or file history. The “ANSI 553” standard is also not a part of the record in this case. The court should construe the claims based upon the intrinsic record. “A court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Phillips*, 415 F.3d at 1317.

Andrew’s proposed construction also reads the phrase “**prescribed set**” out of context and conflicts with the plain meaning of the phrase. In the claim, the phrase “**prescribed set**” is preceded by the indefinite article “**a**,” meaning “one or more” prescribed sets, rather than a

specific or particular prescribed set. *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1232 (Fed. Cir. 2005) (“It is well settled that the term ‘a’ or ‘an’ ordinarily means one or more”). Yet Andrew proposes to construe the phrase “**prescribed set**” to mean “*the* set of frequency bands” in a particular cellular telephone system protocol. The Court should reject Andrew’s proposed construction.

B. “Reverse Control Channels” (Claims 1, 22 and 31)

TruePosition disclosed its proposed construction of this phrase to Andrew on November 22 when the parties exchanged proposed constructions pursuant to the Scheduling Order (A220) because Andrew had identified the phrase as disputed in its non-infringement contention interrogatory responses (A207). In Andrew’s November 22 destination of terms, however, Andrew took the position that the phrase does not require construction (A223-A225). Andrew later designated the phrase for construction on January 18 and proposed its current construction at that time (A237).

1. The Proper Construction

The Court should construe the phrase “**reverse control channel(s)**” to mean “**a control channel(s)** from a cellular telephone(s) to a cell site(s).” TruePosition’s proposed construction is taken directly from the Patent specification. The Patent specification explains:

The control channel from a cell site to a mobile unit is called the ‘forward’ control channel and the *control channel from the cellular telephone to the cell site is called the ‘reverse’ control channel.*

(A17 (col. 2, ll. 16-20) (emphasis supplied)). The inventors expressly defined the phrase “**reverse control channel(s)**” to refer to a control channel(s) from a cellular telephone to a cell site. The Court must therefore construe the phrase to mean a “**control channel(s)** from a cellular telephone(s) to a cell site(s).” See *Vanderlande Indus. Nederland BV v. ITC*, 366 F.3d 1311, 1318 (Fed. Cir. 2004) (“a ‘court should look first to the intrinsic evidence of record . . .’ to

determine if the patentee ‘expressly defined terms used in the claims . . .’”) (quoting *Dow Chem. Co. v. Sumitomo Chem. Co., Ltd.*, 257 F.3d 1364, 1373 (Fed. Cir. 2001)). Nothing in the Patent claims, specification or file history suggests to the contrary.

2. Andrew’s Erroneous Construction

Andrew wrongly proposes to construe the phrase “**reverse control channel**” to mean “a channel that carries only signaling information from a mobile terminal to a base station in the format specified in ANSI 553.” The Court should reject Andrew’s proposed construction. Andrew seeks to limit the construction of the phrase “**reverse control channel**” to a channel carrying information in the format “specified in ANSI 553,” a cellular telephone standard that is not mentioned in the Patent claims, specification or file history. “A court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Phillips*, 415 F.3d at 1317 (quoting *Key Pharms. v. Hercon Lab. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998)). The “ANSI 553” standard is also not a part of the record in this case.

Andrew also seeks to limit construction of the phrase “**reverse control channel**” to a channel that carries “only signaling information.” There is no support in the intrinsic Patent record to for Andrew’s proposed limitation.

C. “Reverse” (Claims 1, 22 and 31)

TruePosition disclosed its proposed construction of this claim term immediately after Andrew designated it for construction on November 22 (A225 & A227). TruePosition’s proposed construction substantially matched Andrew’s proposed construction (*id.*) On January 18, Andrew formally withdrew its proposed construction and now claims that the term “**reverse**”

cannot be construed separately from the whole phrase “**reverse control channel**” (A237 & A241).

1. The Proper Construction

The Court should construe the term “**reverse**” to mean “from a cellular telephone(s) to a cell site(s).” TruePosition’s proposed construction follows logically and necessarily from the Patent specification’s definition of “**reverse control channel**” described in section IV(B)(1).

The Patent specification explains:

The control channel from a cell site to a mobile unit is called the ‘forward’ control channel and the *control channel from the cellular telephone to the cell site is called the ‘reverse’ control channel.*

(A17 (col. 2, ll. 16-20) (emphasis supplied)). The inventors expressly defined two directions that that data may travel in a cellular network. They defined the direction “from a cell site to a mobile unit” as the “forward” direction (A17 (col. 2, ll. 15-17)). They also defined the direction “from the cellular telephone to the cell site” as the “reverse” direction (A17 (col. 2, ll. 17-19)).

The Court must therefore construe the word “**reverse**” to mean from a cellular telephone(s) to a cell site(s). *See Vanderlande Indus. v. ITC*, 366 F.3d 1311, 1318 (Fed. Cir. 2004) (a “court should look first to the intrinsic evidence of record, to determine if the patentee expressly defined terms used in the claims”). Nothing in the Patent claims or file history suggests to the contrary.

The Patent file history also supports TruePosition’s proposed construction of the word “**reverse**” to mean “from a cellular telephone(s) to a cell site(s).” After the application that led to the 144 Patent was filed, the PTO initially rejected some of the pending claims in view of the Prior Art (A131-A132 at ¶ 1). The PTO asserted that the Prior Art disclosed locating cell phones using “control channels” (*id.*). TruePosition distinguished its invention, however, by showing that its location system located cell phones transmitting from a cellular telephone to a cell site rather locating on the signals sent from the cell site to the cellular telephone.

It should be noted that [the Prior Art] stresses that [the Prior Art] system is specifically designed for use in making strength/distance determinations on the basis of forward signals from the base stations², as opposed to reverse signals from the mobile phone.

(A146-A148). The inventors therefore indicated to the PTO that the term “**reverse**” refers to a direction of data transmission from a cellular telephone to a cell site. The Court should therefore construe the word “**reverse**” to mean “from a cellular telephone(s) to a cell site(s).”

2. Andrew’s Erroneous Proposal

Andrew proposes that the Court should not construe the word “**reverse**” separately from the unitary phrase “**reverse control channel(s)**.²” Until January 18, the day before the Joint Claim Construction Statement was due to be filed, the parties not only agreed that the word “**reverse**” did have independent meaning outside of the phrase “**reverse control channel**,” but also essentially agreed upon the construction that TruePosition is now proposing (A225 & A227).

Andrew’s alternative proposed construction of the claim term “**reverse**” is “from a mobile terminal to a base station, in the format specified by ANSI 553” (A241). The Court should reject this construction because the “ANSI 553” standard is nowhere found in the intrinsic Patent record. See Section IV(A)(2)(B)(2).

D. “Control Channels” (Claims 1, 22 and 31)

TruePosition disclosed its proposed construction of this phrase soon after Andrew first designated it for construction on November 22 (A223 & A226). On the evening before the parties Join Claim Construction Statements were due, Andrew informed TruePosition that the phrase “**control channel**” cannot be construed separately from the whole phrase “**reverse**

² It is undisputed that the Patent Claim term “**cell site**” encompasses “base stations,” i.e., the cellular towers of a cellular telephone network.

control channel" and proposed a construction of the phrase "**reverse control channel**" instead (A237 & A241).

1. The Proper Construction

The Court should construe the term "**control channel(s)**" to mean "channel(s) used to transmit control information to and from cellular telephone(s); not voice channel(s)."

Once again, TruePosition's proposed construction is taken directly from the intrinsic record. Although the Patent specification contains no explicit definition of the phrase "**control channel(s)**," both inventors and the PTO adopted a definition of the phrase during prosecution of the application that led to the Patent. After the application was filed, the PTO initially rejected some of the pending claims in view of the Prior Art (A131-A132 at ¶ 1). The PTO asserted that the Prior Art disclosed locating cell phones using "control channels" (*id.*). The Prior Art contained an explicit definition of the phrase "**control channel(s)**":

In a manner which is conventional for cellular telephone networks, each base station within the network is assigned a number of two way voice channels, i.e., channels used to transmit voice signals to and from mobile units operating within the network and a number of set-up or *control channels*, i.e., *channels used for the transmission of digital control information to and from the mobile units*. The function of the set-up or control channels includes, inter alia establishing a voice-communication link with a mobile unit prior to the initiation of a telephone conversation.

(A200.7 (col. 6, ll. 15-25)) (emphasis supplied). The inventors did not dispute that the Prior Art disclosed location on "control channels" and did not express disagreement with the explicit definition "**control channel(s)**" in the Prior Art. Instead, the inventors distinguished the invention by showing that its location system located cell phones transmitting on control channels in the "**reverse**" direction, rather than in the "**forward**" direction (A146-A148). Both the inventors and the PTO therefore understood during prosecution that the phrase "**control**

channels" means channels used to transmit digital control information to and from cellular phones.

The Patent specification further explicitly evidences the inventors intent to broaden the definition of "**control channels**," to include not only control channels that transmit digital information, but also control channels that transmit analog information:

The following discussion refers to FIGS. 1A-1C in providing an overview of a cellular telephone technology. In addition it should be noted that the inventive concepts disclosed herein are applicable to both analog and digital (for example, TDMA) cellular systems that employ *analog control channels*.

(A17 (col. 1, ll. 25-31)) (emphasis supplied). Therefore the phrase "**control channels**" means channels used to transmit control information to and from cellular phones, and is not limited to channels used to transmit digital control information.

Finally, the Patent specification further refined the definition of "control channels" by expressly distinguishing "control channel" location from "voice channel" location:

There are numerous advantages provided by monitoring *control channels* to track the locations of cellular telephones. First, a *voice channel* is an expensive and relatively scarce resource. . . . Thus it would be extremely inefficient for a location system to require the telephone to initiate periodic *voice channel* transmissions. . . . Second, each *voice channel* transmission adds a call record in an associated billing system. Therefore, a large burden would be placed on the billing system if the location system were to require periodic *voice channel* transmissions. In contrast, *control channel* transmissions already occur periodically in cellular systems. . . .

(A18 (col. 4., ll. 24-58)). Therefore the phrase "**control channels**" means "channel(s) used to transmit control information to and from cellular telephone(s); not voice channel(s)."

2. Andrew's Erroneous Proposal

Andrew wrongly proposes that the Court should not construe the word “**control channel(s)**” separately from the unitary phrase “**reverse control channel(s)**.**”** Until January 18, the day before the Joint Claim Construction hearing, the parties both proposed that the phrase “**control channel(s)**” did have independent meaning outside of the phrase “**reverse control channels**,” although they differed radically on the proper construction of that phrase (A223 & A232).

Andrew’s alternative proposed construction of the claim phrase “**control channel(s)**” is “a channel that carries only signaling information in he format specified in ANSI 553” (A241). The Court should reject this construction because the “ANSI 553” standard is not a part of the intrinsic Patent record. *See* Section IV(A)(2)(B)(2).

E. “Time Stamp Bits Representing the Time at Which Said Cellular Telephone Signals Were Received” (Claim 1)

Andrew designated this phrase for construction on evening before the Joint Claim Construction statements were due (A237). TruePosition provided its proposal concerning this phrase the next day (A242).

1. The Proper Construction

The Court need not explicitly construe this phrase because Andrew failed to identify it for construction in timely fashion and because the only arguably technical term in the phrase has a plain meaning that is essentially undisputed. Andrew failed to designate this term for construction until the close of technical expert discovery. The Court’s Scheduling Order required counsel to identify phrases requiring explicit construction during the claim construction phase of the case:

Lawyers must identify, during the claim construction phase of the case, any claim language that will have a meaning to a person of

ordinary skill in the art that differs from the ordinary dictionary meaning. Any language not so identified will be construed according to its ordinary dictionary meaning.

(D.I. 23 at ¶ 7). The Scheduling Order further contemplated that after the parties exchanged claim terms and proposed constructions, they would narrow issues between them in advance of the Joint Claim Construction Statement (D.I. 23 at ¶ 5), and not designate new claim terms.

The phrase “**time stamp bits representing the time at which said cellular telephone signals were received**” should not be construed for another reason. The only arguably technical term in the phrase, “**bits**,” has a plain meaning that the parties essentially agree upon. A “bit” is a “[binary digit] . . . a unit of computer information equivalent to the result of a choice between two alternatives” (A264). The parties proposed constructions of the word “**bits**” track this plain meaning (A242).

If the Court is inclined to explicitly construe the phrase “**time stamp bits representing the time at which said cellular telephone signals were received**,” then the phrase should be construed to mean “binary units of computer information that indicate a time and that symbolize, typify or describe when said cellular telephone signals were received.” TruePosition’s proposed construction is based on the ordinary meaning of the word “**representing**.” The word “**representing**” means, for example, “to serve as a sign or *symbol*,” or “to serve as a counterpart or image of: *TYPIFY*” or to “*describe* as having a specified character or quality” (A267). “Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by” the Federal Circuit and “the Supreme Court in claim interpretation.” *Phillips*, 415 F.3d at 1322.

2. Andrew’s Erroneous Construction

Andrew wrongly proposes to construe the phrase “**time stamp bits representing the time at which said cellular telephone signals were received**” to mean “binary digits

representing the calendar date and clock time at which signals were received at the cell site.”

Andrew’s proposed construction seeks to change the claims using language that is found nowhere in the intrinsic record. The Patent specification describes data sent from a cell site receiver to a central site computer as having a “time stamp representing the exact time the frame of data was created . . .” (A22 (col. 11, ll. 65-67)). Another portion of the patent specification describes an embodiment in which “data has been sampled and time stamped using the same time reference . . .” (A24 (col. 15, ll. 61-64)). But nothing in the Patent specification suggests that the phrase “**time stamp bits**” should be limited to representing time in any particular format, such as “calendar date and clock time.” The Patent does not mention calendar date and clock time. There are many ways of representing time. Time may be expressed as calendar date and clock time, or just clock time, Greenwich mean time or time relative to some other point of reference. Where “[n]othing in the specification, including the claims, indicates explicitly or implicitly, that the inventor intended to impart a novel meaning to” a claim term and the “record also contains no evidence that” the term “has a peculiar meaning in the field of art encompassed by the [] patent[,] [the Federal Circuit has concluded] that the ordinary and customary meaning attributed to this term by those of ordinary skill in this art at the time of the invention involves little more than the application of its widely accepted meaning.” *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1328 (Fed. Cir. 2006).

F. “Means for processing said frames of data from said cell site systems to generate a table identifying individual cellular telephone signals and the differences in times of arrival of said cellular telephone signals among said cell site systems” (Claim 1)

The parties agree that this phrase requires construction and that the phrase is written in the format governed by 35 U.S.C. §112, ¶6. There is no longer any dispute relating to the identity of the function of this phrase (A248).

However, the parties disagree concerning the identity structure corresponding to “means” recited in this phrase. TruePosition has consistently maintained its proposed construction concerning the structure in the Patent specification that corresponds to this phrase (A218 & A242). Andrew recently revised its proposed construction (A224 & A242).

1. The Proper Construction

The recited function is “**processing said frames of data from said cell site systems to generate a table identifying individual cellular telephone signals and the differences in times of arrival of said cellular telephone signals among said cell site systems.**”

TruePosition’s proposed construction identifies the algorithm described in the Patent at “Fig. 7 at the First Four Blocks and Table” and “Col., 13, ll. 33-56” (A242) as corresponding structure. The Patent, at col. 13, ll. 33-56, clearly links the algorithm that is set forth in the First Four Blocks and Table in Figure 7 with the recited function:

Figure 7 is a simplified flowchart of the *processing* performed by the central site system 16. . . .First this system receives a *frame* of data from each of the cell sites Next, the system generates a *table of data identifying the individual signals received*This information is then used to *calculate time difference of arrival (TDOA)*”

(A23 (col. 13, ll. 33-56)) (emphasis supplied). The words “processing,” “frames,” “table” and “time differences of arrival” are clearly linked with the language in the recited function. Therefore TruePosition has correctly identified the algorithm corresponding to the recited function as being the one described at col., 13, ll. 33-56 and the first four blocks of Figure 7.³ TruePosition’s proposed construction should be adopted.⁴

³ TruePosition proposed construction also notes that the same algorithm is described in the Patent at “Figs. 8a-8b” and “Col. 17, ll. 26-68” since the Patent teaches that Figures 8A-8B provide a more detailed description of the processing described in the First Four Blocks of Fig. 7 (A23 (col. 13, ll. 34-36)). Specifically, Figure 8A provides a more detailed description of the processing of the second the Block in Figure 7 entitled “Cross Correlate Data” (A260 (107:10-

2. Andrew's Erroneous Construction

Andrew proposed construction identifies "The elements recited in figures 6 and 6A, the operations reflected in Figure 7, including algorithms disclosed in the patent" (A242).

Andrew proposed construction should not be adopted for at least three reasons. First, Andrew's proposed construction does not cover equivalents of the structure in the Patent specification that corresponds to the recited function. 35 U.S.C. §112, ¶ 6 ("an element in a claim . . . may be expressed as a means for performing a specified function . . . and such claim shall be construed to cover the corresponding structure . . . described in the specification and *equivalents thereof*").

Second, Andrew's proposed construction identifies Figures 6 and 6A as structure corresponding to the recited function even though no language in those figures is clearly linked with the language of the recited function. *B. Braun Medical v. Abbot Labs*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) ("structure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim").

Third, Andrew's proposed construction identifies the "operations reflected in Figure 7" as structure corresponding to the recited function even though not all of the steps of Figure 7 are

12). Figure 8B provides a more detailed description of the processing in the fourth Block in Figure 7 entitled "Calculate TDOA data" (A260 (107:13-16)). The portion of the Patent specification at "Col. 17, ll. 26-68" describes Figs. 8A-8B.

⁴TruePosition's proposed construction also correctly notes that any descriptions in the Patent specification of calculating "frequency difference of arrival (FDOA)" are not structure corresponding to the recited function (A242). Calculating FDOA is not necessary to perform the recited function of calculating TDOA (A23 (col. 13, ll. 33-57 & col. 14, ll. 15-43)). *Franks Casing Crew v. Weatherford*, Int'l, 389 F.3d 1370, 1377 (Fed. Cir. 2004) ("The corresponding structure to a function set forth in a means-plus-function limitation must be necessary to perform the claimed function."). TDOA is used to estimate cell phone location (A23 (col. 14, ll. 32-43)). FDOA is used to estimate cell phone velocity (*id.*)

necessary to perform the recited function. The recited function requires calculating “**the differences in times of arrival**” of signals, *i.e.*, calculating TDOA. The steps of the algorithm in Figure 7 that follow the block labeled “Calculate TDOA Data” are not structure corresponding to the recited function because the function has already been performed when the “calculate TDOA” data block has been performed. *Franks Casing Crew v. Weatherford, Inc.*, 389 F.3d 1370, 1377 (Fed. Cir. 2004) (“The corresponding structure to a function set forth in a means-plus-function limitation must be necessary to perform the claimed function.”).

G. “Table Identifying Individual Cellular Telephone Signals” (Claim 1)

Andrew designated this phrase for construction on the evening before the Joint Claim Construction Statements were due at the close of technical expert discovery (A238). TruePosition provided its proposal concerning this phrase the next day (A242).

1. The Proper Construction

The Court need not explicitly construe this phrase because Andrew failed to identify it for construction in timely fashion and because there are no technical terms in the phrase “**table identifying individual cellular telephone signals**.¹” The Court’s Scheduling Order required that the parties identify terms for construction in timely fashion (D.I. 23 at ¶¶ 5 & 7). The phrase “**table identifying individual cellular telephone signals**” also should not be explicitly construed because a layperson can understand it.

If the Court is inclined to explicitly construe the phrase “**table identifying individual cellular telephone signals**,” then the phrase should be construed to mean a “table identifying particular cellular telephone signals” (A242). The word “**individual**” means “a *particular* being or thing as distinguished from a class, species or collection” (A265) (emphasis supplied). Therefore the phrase “**table identifying individual cellular telephone signals**” should be construed to mean “table identifying particular cellular telephone signals.”

The Patent specification also supports TruePosition's proposed construction. It describes a central site computer that generates a table that identifies particular cellular telephone signals:

Next, the system generates a table of data identifying the individual signals received by the cellular telephone location system during the interval of time represented by the frames of data currently being processed, the individual signals being represented by the letters "A," "B," "C" in Fig. 7. The table further identifies the times of arrival of the signals at each cell site. These times of arrival are represented by the subscripts "T1," "T2," "T3". The system therefore identifies the signals received from one or more cellular telephones during a certain interval of time, and further identifies the time that such signals arrived at the respective cell sites.

(A23 (col. 13, ll. 43-54)) (emphasis supplied).

2. Andrew's Erroneous Construction

Andrew wrongly proposes to construe the phrase "**table identifying individual cellular telephone signals**" to mean a "table containing a code uniquely associated with the cellular telephone that transmitted the signals" (A242). Notably, the Patent specification says nothing about a table "containing a code uniquely associate with the cellular telephone that transmitted the signals." The Patent specification teaches a table identifying individual cellular telephone *signals*, not individual *cellular telephones* (A23 (col. 13, ll. 43-54)).

H. "Means for Determining, on the basis of said times of arrival differences, the locations of the cellular telephones responsible for said cellular telephone signals" (Claim 1)

The parties agree that this phrase requires construction and that the phrase is written in the format governed by 35 U.S.C. §112, ¶6. The parties disagree concerning both the recited function and the corresponding structure. TruePosition has consistently maintained its proposed construction concerning the structure corresponding to this phrase (A218-A219 & A243). Andrew recently revised its proposed construction (A223 & A243).

1. The Proper Construction

TruePosition's proposed construction identifies the recited function as "**determining, on the basis of said times of arrival differences, the locations of the cellular telephones responsible for said cellular telephone signals**" (A243). TruePosition has correctly identified the function as recited in the claim language. *ACTV., Inc. v. Walt Disney*, 346 F.3d 1082, 1087 (Fed. Cir. 2003) (35 U.S.C. §112, ¶ 6 "does not permit limitation of a means-plus-function claim by adopting a function different from that explicitly recited in the claim").

TruePosition proposes that the corresponding structure is a processor programmed to perform an algorithm that is clearly linked in the Patent specification with the recited function, plus equivalents of such a computer processor. TruePosition's proposed construction identifies the algorithm corresponding to the recited function as described in the Patent at "Fig. 7 at the Fifth and Sixth Blocks" and Col. 13, ll. 58-62 (A243). The Patent, at col. 13, ll. 58-62, clearly links the algorithm that is set forth in the Fifth and Sixth Blocks in Figure 7 with the recited function:

This data is then filtered to remove points the system judges to be erroneous. Next, the filtered *TDOA* data is employed to calculate the *location* (for example in terms of latitude and longitude) of the individual *cellular telephone responsible for each signal A,B,C.*

(A23 (col. 13, ll. 58-62)) (emphasis supplied). The words "TDOA [Time Differences of Arrival]" and "location" and the phrase "cellular telephones responsible for each signal" are clearly linked with the language in the recited function. Therefore TruePosition has correctly identified the algorithm corresponding to the recited function as being the one described at Col.,

13, ll. 58-62 and the Fifth and Sixth Blocks of Figure 7.⁵ TruePosition's proposed construction should be adopted.⁶

2. Andrew's Erroneous Construction

The Court should reject Andrew's proposed construction. Andrew identifies the corresponding structure as "determining, on the basis of times of arrival differences, the locations of the mobile cellular telephones whose signals are received." Andrew has incorrectly identified the recited function by diverging from the explicitly recited claim language. *ACTV, Inc. v. Walt Disney*, 346 F.3d 1082, 1087 (Fed. Cir. 2003) (35 U.S.C. §112, ¶ 6 "does not permit limitation of a means-plus-function claim by adopting a function different from that explicitly recited in the claim").

Andrew's proposal concerning the identity of the structure in the Patent specification that corresponds to the function is also flawed. Andrew improperly identifies the corresponding structure as "algorithms disclosed in '144 pat. Col. 16, line 5 – Col., 19, line 2, and Figures cited therein." Andrew's proposed construction is wrong because it does not encompass equivalents of the structure disclosed in the Patent specification. 35 U.S.C. §112, ¶ 6 ("an element in a claim . . . may be expressed as a means for performing a specified function . . . and such claim shall be

⁵ TruePosition's proposed construction also notes that the same algorithm is described in the Patent at "Figs. 8c through the Top Four Elements of Fig. 8d" and "Col. 18, ll. 1-34." The Patent teaches that Figures 8c through the Top Four Elements of Fig. 8d provide a more detailed description of the processing described in the Fifth and Sixth Blocks of Fig. 7 (A23 (col. 13, ll. 34-36) & A262 (165:15-22). The portion of the Patent specification at "Col. 18, ll. 1-34" describes Figs. 8c through the Top Four Elements Fig. 8d.

⁶TruePosition's proposed construction also correctly notes that any descriptions in the Patent specification of calculating frequency differences are not structure corresponding to the recited function of determining cell phone location (A243). The recited function requires cell phone location. Frequency differences are used to determine cell phone velocity, not to determine cell phone location (A23 (col. 14, ll. 32-43)). *Franks Casing Crew v. Weatherford, Int'l*, 389 F.3d 1370, 1377 (Fed. Cir. 2004) ("The corresponding structure to a function set forth in a means-plus-function limitation must be necessary to perform the claimed function.").

construed to cover the corresponding structure . . . described in the specification and *equivalents thereof*") (emphasis supplied).

Andrew's proposed construction is also flawed because the corresponding structure it identifies, "algorithms disclosed in '144 pat. Col. 16, line 5 – Col., 19, line 2, and Figures cited therein," does not all contain language that is clearly linked with the recited function. It does not track the language of the recited function in the way that the Fifth and Sixth Blocks in Figure 7 and col. 13, ll. 58-62 track that language. *B. Braun Medical v. Abbot Labs*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) ("structure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim").

Andrew's proposed construction is also wrong because the structure that Andrew has identified as corresponding to the recited function includes processing that is not necessary to perform the recited cell phone location function. A portion of the structure that Andrew has identified relates to determining cell phone velocity rather than determining cell phone location (A25 (col. 18, l. 35 – col. 19, l. 2)). In the Patent, the operations relating to determining cell phone velocity occur after cell phone location has already been calculated.

I. "Subscribers" (Claims 22 and 32)

Andrew designated this particular term for construction on the evening before the Joint Claim Construction statements were due at the close of technical expert discovery (A239).⁷

1. The Proper Construction

The Court need not explicitly construe this phrase because Andrew failed to identify it in timely fashion (D.I. 23, ¶¶ 5 & 7) and because the word "**subscribers**" is not a technical term.

⁷ In its November 22 designation of claim terms, Andrew designated the phrase "**subscribers possessing mobile cellular telephones**" for construction rather than the word "**subscribers**" (A225).

If the Court is inclined to explicitly construe the word “**subscribers**” then the Court should construe the word to mean “individuals who agree to receive and pay for a service.” TruePosition’s proposed construction of the word “**subscribers**” is based upon the plain meaning of the word “subscribe.” The plain meaning of the word “subscribe” is “to agree to receive and pay for a periodical, service, theater tickets etc.” (A271). “[T]he words of a claim ‘are generally given their ordinary and customary meaning.’” *Phillips*, 415 F.3d at 1312 (quoting *Vitronics*, 90 F.3d at 1582). Therefore the word “**subscribers**” means “individuals who agree to receive and pay for a service.”

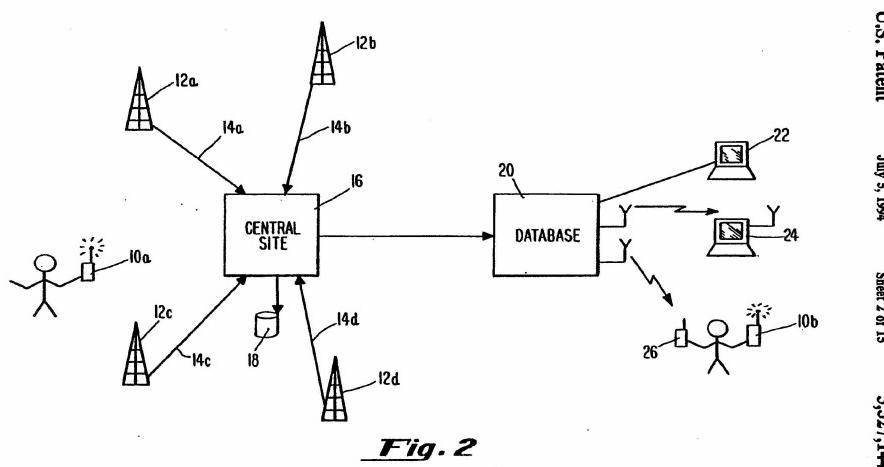
2. Andrew’s Erroneous Construction

Andrew wrongly proposes to construe the phrase “**subscribers**” to mean a “users of the mobile cellular telephones who receive and pay for cellular telephone service” (A243). But Andrew’s proposed construction conflicts with the usage of the word “**subscribers**” in the claims and the Patent specification.

The usage of the word “**subscribers**” in the Patent claims, for example, evidences that the term “**subscribers**,” standing alone, is not inherently limited to cell phone users who receive and pay for cell phone service. Claim 22 recites the phrase “**subscribers possessing mobile cellular telephones**” (A28 (col. 23, ll. 57-58)), which strongly implies that the term “**subscribers**” does not inherently mean people possessing mobile cellular telephones. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir.) (“the claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel”). The meaning of the term “**subscribers**” must encompass people who do not possess mobile cellular phones, and, therefore, must encompass people who are not “users of the mobile cellular telephones who receive and pay for cellular telephone service.” Andrew’s proposed

construction of the word “**subscriber**” would render the phrase “**possessing mobile cellular telephones**” in Claim 22 superfluous.

Andrew’s proposed construction of the word “**subscribers**” also conflicts with the usage of the word in the Patent specification. The Patent specification shows that “**subscribers**” can be people who pay for computer terminal access to a database of cellular telephone locations, rather than people who pay for cell phone service.



The Patent explains:

The central site 16 is further coupled to a database 20, which may be remotely located from the central site and made available to subscribers. *For example, Fig. 2 depicts a first terminal 22 coupled via a modem (not shown) and telephone line to the database 20; a second terminal 24 in radio communication with the database 20; and a third, handheld terminal 26, which is carried by a user who also has a cellular telephone 10b, in radio communication with the database.*

(A21 (col. 9, ll. 23-31)) (emphasis supplied). The Patent specification therefore teaches that “**subscribers**” may be computer terminal users (Fig. 2, Blocks 22, 24) or cell phone users (Fig. 2, Blocks 10b). The Court should therefore not limit its construction of the phrase “**subscribers**” to “users of the mobile cellular telephones who receive and pay for cellular telephone service.”

The Court should instead accord the word “**subscribers**” its ordinary dictionary definition.

J. “Locating Means for automatically determining the locations of said cellular telephones by receiving and processing signals emitted during said periodic reverse control channel transmissions” (Claim 22)

The parties agree that this phrase requires construction and that the phrase is written in the format governed by 35 U.S.C. §112, ¶6. The parties disagree concerning both the recited function and the corresponding structure. TruePosition has consistently maintained its proposed construction of this phrase (A219 & A244). Andrew recently revised its proposed construction (A224 & A244).

1. The Proper Construction

TruePosition’s proposed construction identifies the recited function as “**automatically determining the locations of said cellular telephones by receiving and processing signals emitted during said periodic reverse control channel transmissions**” (A244). TruePosition has correctly identified the function because it has identified the explicitly recited function. *ACTV., Inc. v. Walt Disney*, 346 F.3d 1082, 1087 (Fed. Cir. 2003) (35 U.S.C. §112, ¶ 6 “does not permit limitation of a means-plus-function claim by adopting a function different from that explicitly recited in the claim”).

TruePosition’s proposed construction identifies the algorithmic structure corresponding to the recited function at “Fig. 7 at the First Six Blocks and Table” and Col. 13, ll. 33-62. The

Patent, at col. 13, ll. 33-62 clearly links the algorithm that is set forth in the First Six Blocks in Figure 7 with the recited function:

Fig. 7 is a simplified flowchart of the *processing* performed by the central site system 16. . . First, this system *receives* a frame of data from each of the cell sites. Next, each frame from a given cell site (or the sampled *signal* portion of each frame) is cross-correlated Next, the filtered TDOA data is employed to calculate the *location* (for example in terms of latitude and longitude) of the individual cellular telephone responsible for each *signal* A,B,C.

(A23 (col. 13, ll. 33-62)) (emphasis supplied). The words “processing,” “receives” and “signal” are clearly linked with the language in the recited function. Therefore TruePosition has correctly identified the algorithm corresponding to the recited function as being the one described at Col., 13, ll. 33-62 and the First Six Blocks and Table of Figure 7.⁸ TruePosition’s proposed construction should be adopted.⁹

2. Andrew’s Erroneous Construction

The Court should reject Andrew’s propose construction. Andrew’s identifies the recited function as follows:

Automatically determine the location of cellular telephones by monitoring every periodic reverse control channel transmissions

⁸ TruePosition proposed construction also notes that the same algorithm is described in the Patent at “Figs. 8a through the Top Four Elements of Fig. 8d” and “Col. 17, l. 26 – Col. 18, l. 34” since the Patent teaches that Figures 8a through the Top Four Elements of Fig. 8d provide a more detailed description of the processing described in the First Sixth Blocks of Fig. 7 (A23 (col. 13, ll. 34-36)). *See supra* footnotes 3 and 5,. The portion of the Patent specification at “Col. 17, l. 26 – Col. 18, l. 34” describes Figs. 8c through the Top Four Elements Fig. 8d.

⁹TruePosition’s proposed construction also correctly notes that any descriptions in the Patent specification of calculating frequency differences is not structure corresponding to the recited function of determining cell phone location (A244). Frequency differences are used to determine cell phone velocity, not necessary to determine cell phone location (A23 (col. 14, ll. 32-43)). *Franks Casing Crew v. Weatherford,.. Int’l*, 389 F.3d 1370, 1377 (Fed. Cir. 2004) (“The corresponding structure to a function set forth in a means-plus-function limitation must be necessary to perform the claimed function.”).

emitted from every mobile cellular telephone in the network to determine the location of all such mobile cellular telephones without a specific request to locate them, and processing the signals emitted during the phones' reverse control channel transmissions

(A244). Andrew has improperly identified the function by diverging from the functional language of the claims.

Andrew identifies the corresponding structure as “algorithms disclosed in ‘144 pat. Col. 16, line 5 – Col., 19, line 2, and Figures cited therein.” But Andrew’s proposed construction is incorrect because it does not cover equivalents of the structure in the Patent specification that corresponds to the recited function. 35 U.S.C. §112, ¶6 (“an element in a claim . . . may be expressed as a means for performing a specified function . . . and such claim shall be construed to cover the corresponding structure . . . described in the specification and *equivalents* thereof”) (emphasis supplied).

Andrew’s proposed construction is also incorrect because the portion of the Patent specification that Andrew has identified, “algorithms disclosed in ‘144 pat. Col. 16, line 5 – Col., 19, line 2, and Figures cited therein,” is not all clearly linked with the recited function. That structure also includes processing that is not necessary to perform the recited function of performing cell phone location. A portion of the structure that Andrew has identified relates to determining cell phone velocity rather than determining cell phone location (col. 18, l. 35 – col. 19, l. 2). In the Patent, the operations relating to determining cell phone velocity occur after cell phone location has already been calculated and are not necessary to perform cell phone location.

K. “Database means for storing Location Data Identifying the Cellular Telephones and their Respective Locations, and for Providing Access to said Database to Subscribers at Remote Locations (Claim 22)

The parties agree that this phrase requires construction and that the phrase is written in the format governed by 35 U.S.C. §112, ¶6. There is no dispute relating to the identity of the function of this phrase (A245).

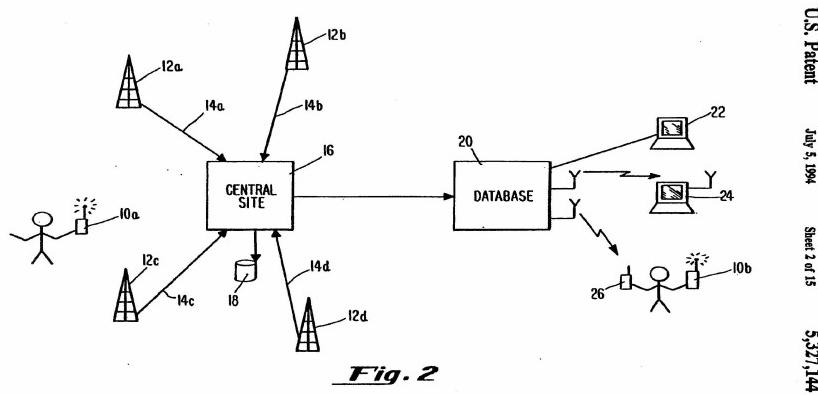
However, the parties disagree concerning the identity structure corresponding to “means” recited in this phrase. TruePosition has consistently maintained its proposed construction concerning the structure corresponding to this phrase. Andrew recently revised its proposed construction.

1. The Proper Construction

TruePosition properly construed the “means” in this phrase to encompass three different corresponding structures in the Patent specification each corresponding to the recited function (A245). The recited function is “**storing location data identifying the cellular telephones and their respective locations, and for providing access to said database to subscribers at remote locations**” (col. 23, l. 67 – col. 24, l. 2). The three structures that TruePosition has identified are each a combinations of a database and means for accessing the database (A245). The Patent specification clearly links the three structures that TruePosition has identified with the recited function, as illustrated below:

The central site 16 is further coupled to a *database* 20, which may be remotely located from the central site and made *available to subscribers*. For example, [1] Fig. 2 depicts a first terminal 22 coupled via a modem (not shown) and telephone line to the database 20; [2] a second terminal 24 in radio communication with the database 20; and [3] a third, handheld terminal 26, which is carried by a user who also has a cellular telephone 10b, in radio communication with the database.

(A21 (col. 9, ll. 23-31)) (emphasis supplied).



The words “database” and the phrase “available to subscribers” clearly link the three structures with the recited function. TruePosition’s proposed construction should be adopted.

2. Andrew’s Erroneous Construction

Andrew proposes that the “means” be construed to cover “a database or local disk storage device containing the unique code corresponding to each cellular telephone and a terminal coupled to the database via (1) modem and telephone line, or (2) radio communication providing access to the database to the subscribers.”

Andrew proposed construction should not be adopted for at least two reasons. First, Andrew’s proposed construction does not cover equivalents of the structure in the Patent specification that corresponds to the recited function. 35 U.S.C. §112, ¶ 6 (“an element in a claim . . . may be expressed as a means for performing a specified function . . . and such claim shall be construed to cover the corresponding structure . . . described in the specification and

equivalents thereof") (emphasis supplied). Second, Andrew's proposed construction is unclear. Andrew purports to identify corresponding structure but does not cite to the patent specification.

L. "Data Identifying the Cellular Telephones" (Claims 22 and 32)

Andrew designated this phrase for construction on the evening before the Joint Claim Construction Statements were due at the close of technical expert discovery TruePosition provided its proposal concerning this phrase the next day.

1. The Proper Construction

The Court need not explicitly construe this phrase because Andrew failed to identify the term for construction in timely fashion and because there are no technical terms in the phrase "**data identifying the cellular telephones.**" The Court's Scheduling Order required counsel to identify terms in timely fashion (D.I. 23 at ¶¶ 5 & 7). Also, the phrase "**data identifying the cellular telephones**" also should not be explicitly construed because a layperson can understand it.

If the Court is inclined to explicitly construe the phrase "**data identifying the cellular telephones,**" then the phrase should be construed to mean data identifying the particular "**cellular telephones**" that are recited as antecedents in the claim. "It is a rule of law well established that the definite article 'the' particularizes the subject which it precedes." *See NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1306 (Fed. Cir. 2005) (noting that patentee correctly asserted that "the definite article 'the' refers to the antecedent" phrase recited in the claim).

In claim 22, the phrase "**the cellular telephones**" refers back to the phrase "**multiple mobile cellular telephones each initiating periodic signal transmissions over one of a prescribed set of reverse control channels**" recited in Claim 22. Therefore, the phrase "**data identifying the cellular telephones**" means data identifying the "**multiple mobile cellular**

telephones each initiating periodic signal transmissions over one of a prescribed set of reverse control channels” recited in claim 22.

In claim 32, the phrase “**the cellular telephones**” refers back to the phrase “**cellular telephones responsible for said cellular telephone signals**” recited earlier in Claim 31. Therefore, the phrase “**data identifying the cellular telephones**” means data identifying the “**cellular telephones responsible for said cellular telephone signals**” recited in Claim 31.

2. Andrew’s Erroneous Construction

Andrew wrongly proposes to construe the phrase “**data identifying the cellular telephones**” to mean “the unique code associated with the cellular telephone” (A246). Andrew’s proposed construction cannot be squared with plain language of the phrase “**data identifying the cellular telephones.**” Data identifying multiple cellular telephones is not the same as a “unique code associated” with one phone.

M. “Processing said Frames of Data to Identify Individual Cellular Telephone Signals” (Claims 31)

Andrew designated this phrase for construction on the evening before the Joint Claim Construction Statements were due at the close of technical expert discovery. TruePosition provided its proposal concerning this phrase the next day.

1. The Proper Construction

The Court need not explicitly construe this phrase because Andrew failed to identify it in a timely fashion. If the Court is inclined to explicitly construe the phrase “**processing said frames of data to identify individual cellular telephone signals,**” then the phrase should be construed to mean a “processing said frames of data to identify particular cellular telephone signals” (A246). The word “**individual**” means “a *particular* being or thing as distinguished from a class, species or collection” (A265) (emphasis supplied). Therefore the phrase “**processing**

said frames of data to identify individual cellular telephone signals" should be construed to mean "processing said frames of data to identify particular cellular telephone signals."

2. Andrew's Erroneous Construction

Andrew wrongly proposes to construe the phrase "**processing said frames of data to identify individual cellular telephone signals**" to mean "extracting from the data frames a code uniquely associated with the cellular telephone that transmitted the signals" (A246). But Andrew's proposed construction is inconsistent with the plain meaning of the claim. The claim recites processing frame to "**identify individual cellular telephone signals**," while Andrew's proposed construction requires processing frames to identify individual *cellular telephones*. The Patent specification confirms that in the preferred embodiment, frames are processed to identify cell phone signals, not cell phones:

Next, the system generates a table of data *identifying the individual signals received by the cellular telephone location system* during the interval of time represented by the frames of data currently being processed, the individual signals being represented by the letters "A," "B," "C" in Fig. 7. The table further identifies the times of arrival of the signals at each cell site. These times of arrival are represented by the subscripts "T1," "T2," "T3". The system therefore *identifies the signals* received from one or more cellular telephones during a certain interval of time, and further identifies the time that such signals arrived at the respective cell sites.

(A23 (col. 13, ll. 43-54)) (emphasis supplied).

N. "**Time Stamp Bits Representing the Time at Which Said Frames Were Produced at Each Cell Site**"

Andrew designated this phrase for construction on January 18 (A238). TruePosition provided its proposal concerning this phrase the next day (A246).

1. The Proper Construction

The Court need not explicitly construe this phrase. The phrase “**time stamp bits representing the time at which said frames were produced at each cell site**” should not be explicitly construed because there are no technical terms at issue. Neither party is asking for the Court to construe the word “frames.” The only other arguably technical term in the phrase, “**bits**,” has a plain meaning that the parties essentially agree upon. A “bit” is a “[binary digit] . . . a unit of computer information equivalent to the result of a choice between two alternatives” (A264). The parties proposed constructions of the word “**bits**” track this plain meaning (A246).

If the Court is inclined to explicitly construe the phrase “**time stamp bits representing the time at which said frames were produced at each cell site**,” then the phrase should be construed to mean “binary units of computer information that indicate a time and that symbolize, typify or describe when said frames were produced at each cell site.” TruePosition’s proposed construction is based on the ordinary meaning of the word “**representing**. ” “[T]he words of a claim ‘are generally given their ordinary and customary meaning.’ ” *Phillips*, 415 F.3d at 1312 (quoting *Vitronics*, 90 F.3d at 1582). The word “**representing**” means, for example, “to serve as a sign or *symbol*,” or “to serve as a counterpart or image of: *TYPIFY*” or to “*describe* as having a specified character or quality” (A267).

2. Andrew’s Erroneous Construction

Andrew wrongly proposes to construe the phrase “**time stamp bits representing the time at which said frames were produced at each cell site**” to mean “Binary digits representing the calendar date and clock time at which said frames were received at each cell site.” Once again, Andrew seeks to change the claims using language that is found nowhere in the intrinsic record. The Patent specification describes data frames sent from a cell site receiver to a central site computer having a “time stamp representing the exact time the frame of data was

created . . ." (A22 (col. 11, ll. 65-67)). But even if the Court chose to import the phrase "exact time" into the claims, nothing in the Patent specification suggests that "exact time" need be expressed in any particular format, such as "calendar date and clock time." The phrase "calendar date and clock time" does not appear in the Patent. There are many ways of representing "exact time." "Exact time" may be expressed as calendar date and clock time, or just clock time or time relative to some other point of reference.

V. CONCLUSION

For these reasons, TruePosition respectfully requests that the Court adopt the claim construction proposals that TruePosition has set forth in the parties Joint Claim Construction Statement.

Dated: February 2, 2007

/s/*Francis DiGiovanni*

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CERTIFICATE OF SERVICE

I, Francis DiGiovanni, hereby certify that on this 2nd day of February, 2007, I caused a true and correct copy of the foregoing **TRUEPOSITION'S OPENING CLAIM CONSTRUCTION BRIEF** to be served upon the following individuals in the manner indicated below:

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